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(54) Title: THERMAL TREATMENT OF FUNCTIONALIZED CARBON NANOTUBES IN SOLUTION TO EFFECT THEIR
DEFUNCTIONALIZATION

(57) Abstract: The present invention is directed towards methods of thermally defunctionalizing functionalized (derivatized) carbon nanotubes (CNTs) in solution or suspended in a liquid medium. Such defunctionalization largely comprises the removal of sidewall functionality from the CNTs, but can also serve to remove functionality from the CNT ends. Such methods facilitate the resuspension of such defunctionalized CNTs in various solvents and permit the defunctionalization of functionalized CNTs that would normally decompose (or partially decompose) upon thermal treatment. Such methods of defunctionalization can typically lead to defunctionalized CNTs that are essentially pristine (or nearly pristine), and which, in contrast to prior art methods of thermal defunctionalization, can be easily resuspended in a variety of solvents.

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